

REMARKS

Claims 1, 3, 5, 7, 23, and 25 are presented for examination. Claims 2, 4, 6, 8-22, 24, and 26 have been canceled without prejudice or disclaimer of subject matter. Claims 1, 23, and 25, the independent claims, have been amended to define more clearly what Applicants regard as their invention. Favorable reconsideration is requested.

Claims 1, 3, 5, 7, 23, and 25 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. The Examiner states that there is insufficient antecedent basis for the recitation of “the factors” in line 15 of Claim 1. The Examiner made similar statements with respect to Claims 23 and 25.

The claims have been carefully reviewed and amended as deemed necessary to ensure that they conform fully to the requirements of Section 112, second paragraph, with special attention to the points raised in paragraph 4 of the Office Action. It is believed that the rejection under Section 112, second paragraph, has been obviated, and its withdrawal is therefore respectfully requested.

Claims 1, 3, 5, 7, and 23 were rejected under 35 U.S.C. § 102(a) as being anticipated by the so-called “Applicant’s admitted prior art” at pages 1-9 of the specification (hereinafter “the APA”). Claim 25 was rejected under 35 U.S.C. § 103(a) as being obvious from the APA.

Claim 1 is directed to an image coder which compares a predetermined number of orthogonal transformation factors from an orthogonal transformation unit with quantization thresholds equal in number to the orthogonal transformation factors, and selectively quantizes the orthogonal transformation factors on the basis of the comparison

result in coding processing. A first scan converter is adapted to rearrange the orthogonal transformation factors in a first scan sequence which is different from a zigzag scan sequence and output the predetermined number of the rearranged orthogonal transformation factors at a time. A second scan converter is adapted to rearrange quantized orthogonal transformation factors in the zigzag scan sequence and output the rearranged quantized orthogonal transformation factors.

One notable feature of the image coder of Claim 1 is that a first scan converter rearranges orthogonal transformation factors in a first scan sequence which is different from a zigzag scan sequence and a second scan converter rearranges quantized orthogonal transformation factors in a zigzag scan sequence.

In a zigzag scan sequence (shown, for example, in Fig. 2A of the specification), significant factors (not 0 factors) among the orthogonal transformation factors generally tend to continuously concentrate in a certain part of the sequence. In Claim 1, the orthogonal transformation factors are rearranged, before the quantization, in a first scan sequence (shown, for example, in Figs. 2B to 2D) which is different from the zigzag scan sequence. Significant factors in the sequence tend to be unlikely to continuously concentrate in a certain part of the sequence.<sup>1</sup>

In the APA, on the other hand, the scan sequences are the same before and after the quantization; in particular, a zigzag scan sequence is adopted. Nothing in the APA would teach or suggest a scan sequence different from a zigzag scan sequence to be

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<sup>1</sup>It is of course to be understood that the references to various portions of the present application are by way of illustration and example only, and that the claims are not limited by the details shown in the portions referred to.

adopted before the quantization. That is, nothing in the APA would teach or suggest a first scan converter that rearranges orthogonal transformation factors in a first scan sequence which is different from a zigzag scan sequence, and a second scan converter that rearranges quantized orthogonal transformation factors in a zigzag scan sequence, as recited in Claim 1.

Accordingly, Claim 1 is believed to be patentable over the APA.

Independent Claims 23 and 25 are method and computer-readable storage medium claims, respectively, corresponding to coder Claim 1, and are believed to be patentable over the APA for at least the same reasons as discussed above in connection with Claim 1.

The other claims in this application are each dependent from Claim 1 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing remarks, Applicants respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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